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Title: PF-4 Wireless Project

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PF-4 Wireless Project

Enabling a Modern, Digital Manufacturing Operation



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9 FEB 2019



Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

PF-4 Information Technology End State : The Vision

A production facility that utilizes IT-based productivity enhancement tools just like any other production facility.

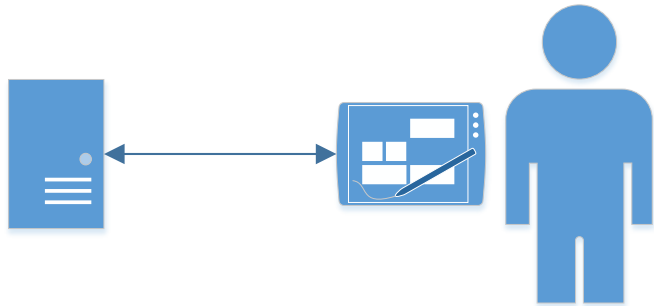
- Assumed future truths:
 - There will always exist **UNCLASSIFIED** equipment, processes, materials, and activities
 - There will always exist **CLASSIFIED** equipment, processes, materials, and activities
 - New equipment and processes will increasingly utilize **WIRELESS** technologies

IT improves productivity by improving communication in 2 ways

Vision

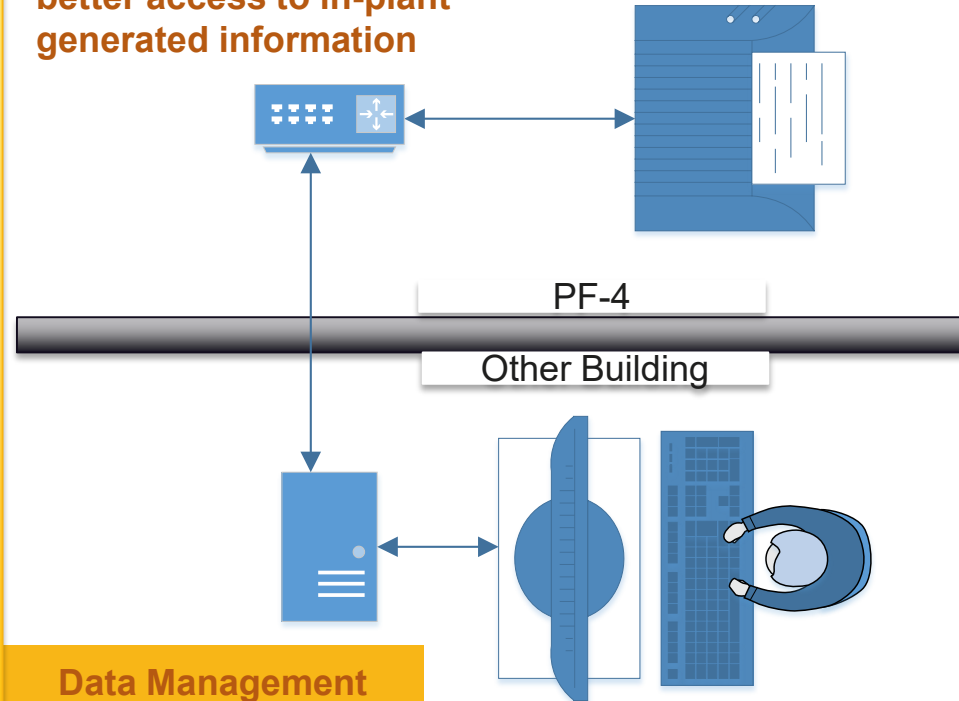
1) Plant workers have better access to information.

2) Plant workers can input information faster and more accurately



Plant Worker

1) Non-plant workers have better access to in-plant generated information



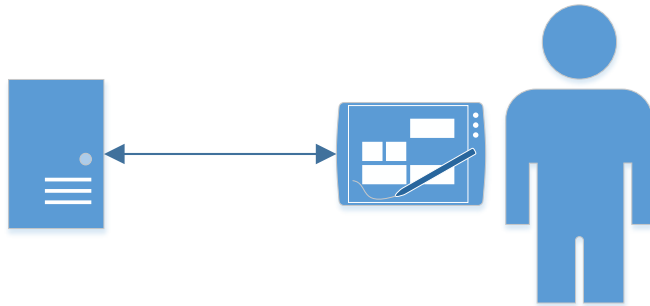
Data Management

IT improves productivity by improving communication in 2 ways

Vision

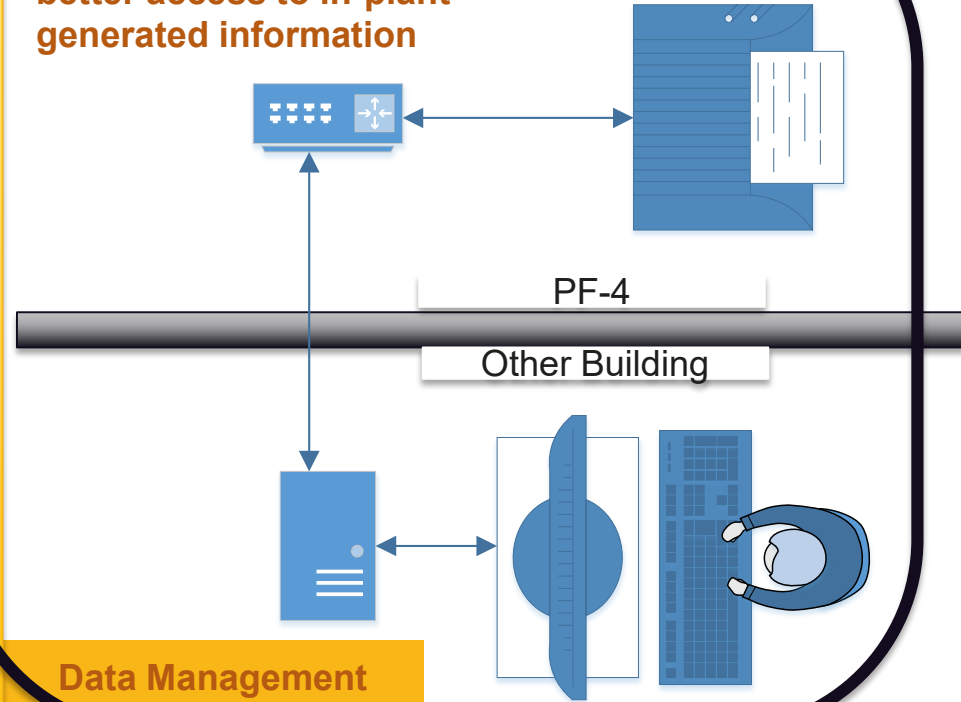
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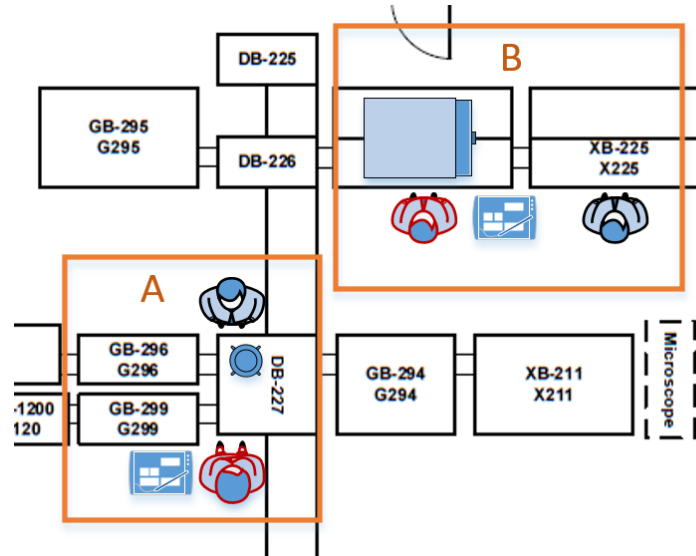


Data Management

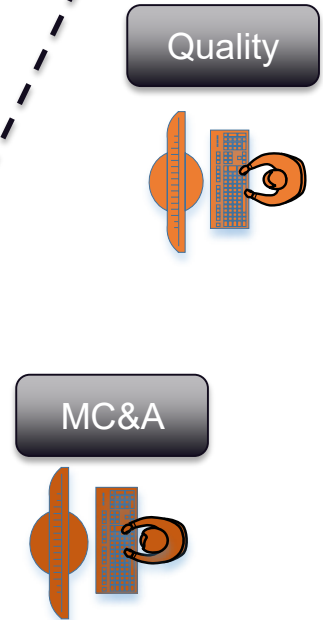
Data Management Productivity with IT. How it would work.

Equipment within GBs communicates to systems without a GB penetration

- A) balance uploads data to tablet. Data is confirmed by worker. MC&A staff can immediately see data
- B) furnace talks directly to systems. Quality staff can immediately review data from furnace



Goal = improve overall productivity and quality of work through error reduction and authoritative source data



Q = Why CLASSIFIED WIRELESS ?

- Why CLASSIFIED ?
 - PF-4 programmatic work activity involves the movement of SNM = LANMAS/iMASS Transaction (classified)
 - PF-4 programmatic work will be controlled by MES/Solumina (classified)
- Why WIRELESS ?
 - Hardwired infrastructure is VERY EXPENSIVE to install in PF-4
 - Work activities usually MOVE throughout the evolution
 - Tablets with batteries allow the elimination of power distribution installation (VERY EXPENSIVE)
 - Data can move through GB walls without a penetration (CONTAMINATION RISK)

Q = How CLASSIFIED WIRELESS ?

A = Implement CSfC

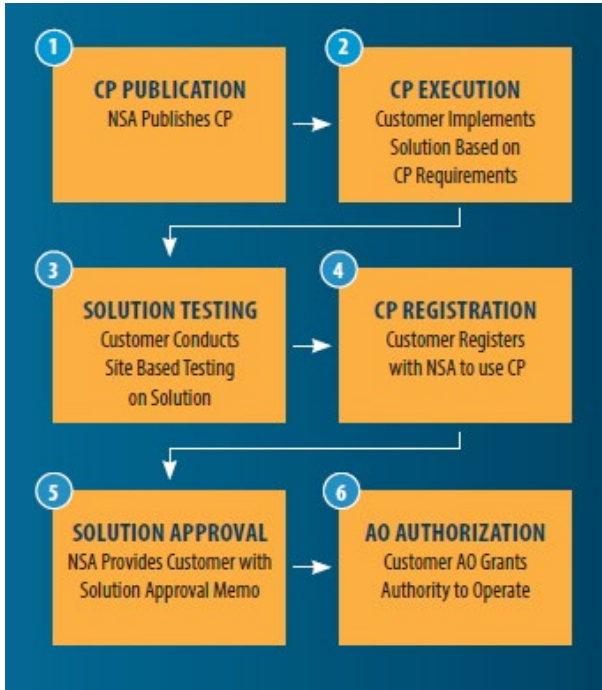
What is CSfC? From the NSA website:

U.S. Government (USG) customers increasingly require immediate use of the market's most modern commercial hardware and software technologies within National Security Systems (NSS), in order to achieve mission objectives. Consequently, the National Security Agency/Central Security Service's (NSA/CSS) is developing new ways to leverage emerging technologies to deliver more timely Information Assurance (IA) solutions for rapidly evolving customer requirements. The NSA/CSS's Commercial Solutions for Classified (CSfC) process enables commercial products to be used in layered solutions to protect classified NSS information. This provides the ability to securely communicate, based on commercial standards, with a solution that can be fielded in months, versus years.

By leveraging commercially-based and traditional Government-Off-The-Shelf (GOTS) IA solutions, NSA's comprehensive IA strategy uses the right tool for the right job. Additionally, NSA's IA mission continues to support customers with existing GOTS IA solutions or needs that can only be met via GOTS.

To learn more, go to <http://www.nsa.gov/resources/everyone/csfc>

The CSfC Process and Trusted Integrators



What is a “Trusted Integrator?”

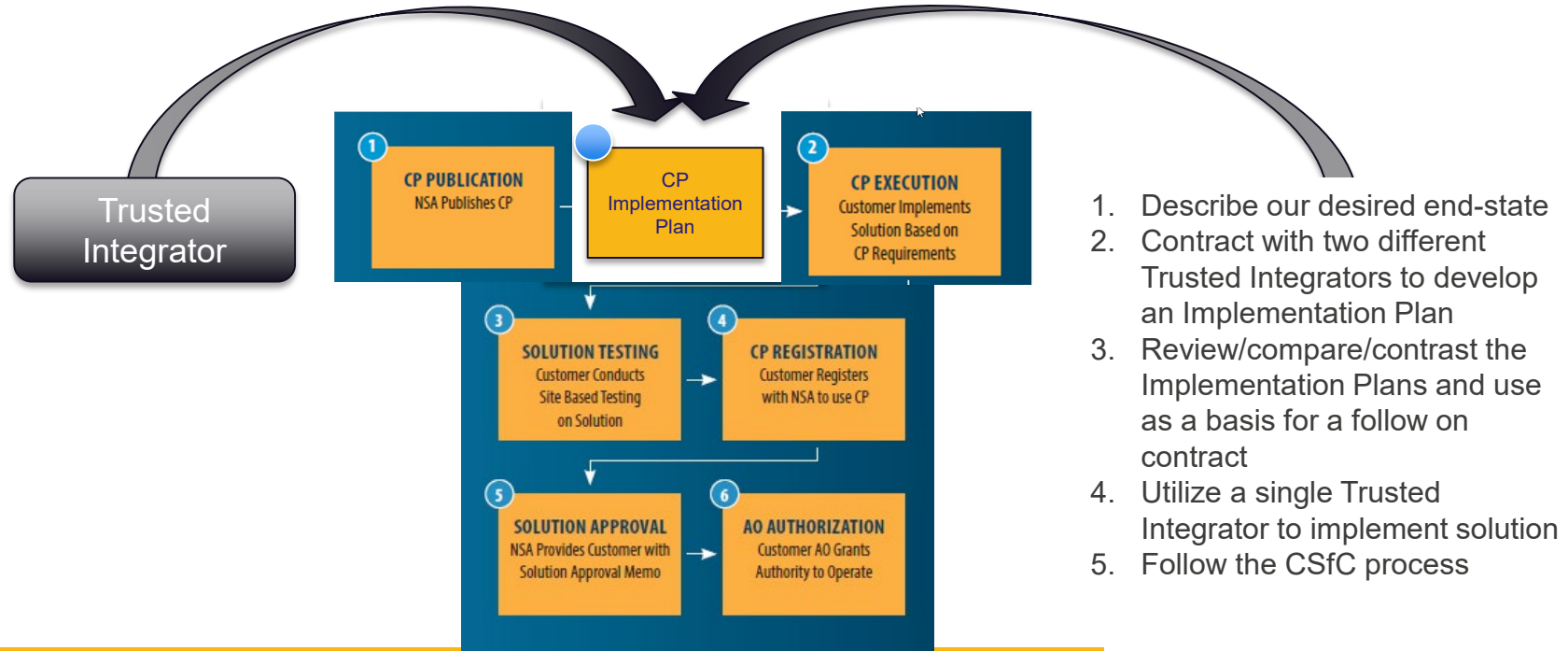
A CSfC Integrator is defined as an organization that meets the following criteria and is qualified to assemble and integrate components according to a CSfC Capability Package (CP), test the resulting solution, provide a body of evidence to the solution Authorizing Official (AO)/Designated Approving Authority (DAA), maintain the solution, and be the first line of response in troubleshooting or responding to security incidents.

Integrators who demonstrate compliance to these criteria and sign a Memorandum of Agreement (MoA) with NSA have the option to be listed as CSfC Integrators on www.nsa.gov.

To learn more, go to <http://www.nsa.gov/resources/everyone/csfc>

Q = What is OUR PLAN?

A = Insert a Trusted Integrator to help us follow the process



Proposed Approach and Scope

Status

- ✓ • Develop High-Level Requirements (Vision) Document
 - ✓ • Utilize the NSA Commercial Solutions for Classified Program (CSfC)
 - ✓ • Interview candidate companies from the “Trusted Integrator” list – [Stage Gate w/ Sponsors](#)
 - ➔ • Contract with two different Integrators to develop separate plans
 - Provide functional requirement
 - Provide access to LANL computer/network staff
 - Provide facility layouts, equipment lists, and a tour as required
 - Deliverable is Implementation Strategy and Tier 1 Network Topology
- Fall 2019
- Create RFP/RFQ for Network Implementation – [Stage Gate w/ Sponsors](#)
 - Take input from both independent studies
 - Mold input together to create an RFQ/RFP for implementation
 - RFQ/RFP could include limited custom hardware solution for Data Management solutions
 - RFP/RFQ will include procedures/processes for maintenance of TSCM controls
- Spring 2020
- All parties agree on path forward, issue RFP for implementation – [Stage Gate w/ Sponsors](#)
 - Initial elements operational in Fall 2020